

U.S. Patent Application Serial No. 10/825,202
Supplemental Response filed November 27, 2007
Reply to OA dated August 2, 2007

AMENDMENTS TO THE CLAIMS:

Please cancel claims 1, 3-5, 9 and 13-16 without prejudice or disclaimer, and amend claims 6-8 and 10, as follows. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-5 (Canceled).

Claim 6 (Currently amended): A polymer composite according to claim 1; A polymer composite comprising:

an organic polymer (A) comprising either a polymer produced from a water soluble (meth)acrylate ester (a), or a copolymer produced from a water soluble (meth)acrylate ester (a) and at least one compound selected from a group consisting of (meth)acrylamide and N-substituted (meth)acrylamides (b); and

a water swelling clay mineral (B);

wherein the organic polymer (A) and the water swelling clay mineral (B) interact to form a three dimensional network structure; and

wherein said water soluble (meth)acrylate ester (a) is at least one compound selected from a group consisting of methoxyethyl acrylate, ethoxyethylacrylate, methoxyethyl methacrylate and ethoxyethyl methacrylate.

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Claim 7 (Currently amended): ~~A polymer composite according to claim 1;~~ A polymer composite comprising:

an organic polymer (A) comprising either a polymer produced from a water soluble (meth)acrylate ester (a), or a copolymer produced from a water soluble (meth)acrylate ester (a) and at least one compound selected from a group consisting of (meth)acrylamide and N-substituted (meth)acrylamides (b); and

a water swelling clay mineral (B);

wherein the organic polymer (A) and the water swelling clay mineral (B) interact to form a three dimensional network structure; and

wherein said organic polymer (A) is a copolymer of a water soluble (meth)acrylate ester (a) and at least one compound selected from a group consisting of (meth)acrylamide and N-substituted (meth)acrylamides (b), and a molar ratio of (b)/(a) within said copolymer is no more than 1.

Claim 8 (Currently amended): ~~A polymer composite according to claim 1;~~ A polymer composite comprising:

an organic polymer (A) comprising either a polymer produced from a water soluble (meth)acrylate ester (a), or a copolymer produced from a water soluble (meth)acrylate ester (a) and at least one compound selected from a group consisting of (meth)acrylamide and N-substituted (meth)acrylamides (b); and

a water swelling clay mineral (B);

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wherein the organic polymer (A) and the water swelling clay mineral (B) interact to form a three dimensional network structure; and

wherein a tensile strength of said polymer composite is at least 500 kPa, a tensile breaking elongation is at least 200%, and an elastic modulus at a tensile elongation of 100% is at least 50 kPa.

Claim 9 (Canceled).

Claim 10 (Currently amended): ~~A stretched product of a polymer composite according to claim 9; A stretched product of a polymer composite produced by stretching a polymer composite according to any one of claim 6 through claim 8,~~ wherein a tensile strength of said stretched product is at least 1000 kPa, a tensile breaking elongation is at least 200%, and an elastic modulus at a tensile elongation of 100% is at least 100 kPa.

Claims 11-16 (Canceled).